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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,906	01/04/2002	Christopher D. Batich	OMT-1 US	1157

7590

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EXAMINER

LEWIS, KIM M

ART UNIT

PAPER NUMBER

3761

DATE MAILED: 07/08/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/857,906

Applicant(s)

BATICH ET AL.

Examiner

Kim M. Lewis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: *Detailed Action*.

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## DETAILED ACTION

### *Specification*

1. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1, 3 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,672,418 ("Hansen et al.") in view of U.S. Patent No. 4,878,908 ("Martin et al.).

Regarding claim 1, Hansen et al. disclose particle binders for use in the manufacturing of absorbent pads, bandages (wound dressings), etc. (note the brief

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description of the drawing section). Hansen et al. further disclose that the method of preparing such products comprises cross-linking anti-microbial particles, such as, for example, carbox and chloramphenicol (table 1, col. 15-17) to various disclosed fibers via a binder. The binders have "...at least one functional group that is capable of forming a hydrogen bond with fibers, and at least one functional group that also is capable of forming a hydrogen bond or a coordinated covalent bond with particles that have a hydrogen-bonding or a covalent bonding functionality" (i.e., not siloxane bonds bind the particles to the fibers) (col. 3, lines 27-32).

The following steps complete the formation of the articles: forming the fibers into a sheet or web, attaching the binder and particles, forming the desired absorbent articles.

Hansen et al. fail to teach that the sheet or web is a superabsorbent polymer matrix having an enhanced surface area. The applicant should note that it is disclosed in the specification of the present invention that the superabsorbent polymer matrix is formed by electrostatic spinning fibers, such as, for example, polyvinyl alcohol.

Martin et al. disclose the fibrillar products, such as a wound dressing (Fig. 4) having a high surface area and being constructed from a mat (web) made by electrostatic spinning of fibers constructed from material, such as, polyvinyl alcohol (col. 4, line 46). Therefore, Martin et al. disclose a superabsorbent polymer matrix similar to that of the instant invention.

Martin et al. further disclose that the dressings may include surface treatments with antiseptics or other wound healing properties (col. 2, lines 15-51).

It would have been obvious to one having ordinary skill in the art to substitute the web of Hansen et al. for the mat (web) of Martin et al. because as explained at col. 8, lines 26-34, "[t]he high surface area of the mats according to the present invention affords a method of immobilizing a range of active moieties so that they are constrained to act at the site of application and do not percolate throughout the body. Moieties which may be immobilized include enzymes, drugs and active carbon. These moieties may be added to the spinning solutions or dispersions or the mats may subsequently be treated with them."

Additionally, the mat (web) of Martin et al. would perform equally as well as the web disclosed in Hansen et al.

As regards claim 3, as can be read from the rejection of claim 1 above, once modified the moieties (antimicrobial compounds) will bond to the fibers extending above the outer surface of the web in a chain-like fashion.

As regards claims 5-7, the bandage can be used as a sanitary pad or as a tampon.

5. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansen et al. and Martin et al. as applied to claim 1 above, and further in view of U.S. Patent No. 5,429,628 ("Trinh et al.").

As regards claims 2 and 4, both Hansen et al. and Martin et al. fail to teach antimicrobial compounds attached to the web/mat are quaternary ammonium

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compounds. However, Trinh et al. disclose that it is conventional to add quaternary ammonium compounds to articles for use on the body as a common antibacterial (antimicrobial) agent.

In view of Trinh et al., one having ordinary skill in the art would have been motivated to select quaternary ammonium compounds as the antimicrobial agent in order to prevent the growth of microbial bacteria.

Additionally, the applicant should note that Hansen et al. disclose that particles are bonded to the web by covalent bonding.

As regards claim 8, the method of fabricating an intrinsically antimicrobial dressing reads on the method of making the wound dressing as outlined in the rejection of claim 1 above.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,035,892 ("Blank et al.") in view of Martin et al.

As regards claim 8, Blank et al. disclose antimicrobial superabsorbent composition and methods. Specifically disclosed is a method of manufacturing a superabsorbent dressing having attached thereto, antimicrobial compounds. Blank et al. fail to teach that the dressing has an enhanced surface area.

Martin et al. disclose webs for use in dressings having an enhanced surface area for the purpose of creating a more absorbent dressing even when the fibers, which make up the web are small in diameter.

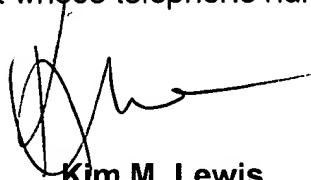
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In view of Martin et al., it would have been obvious to one having ordinary skill in the art to provide the wound dressing of Blank et al. with an enhanced surface area the purpose of creating a more absorbent dressing even when the fibers, which make up the web are small in diameter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim M. Lewis whose telephone number is 703.308.1191. The examiner can normally be reached on Mondays and Tuesdays from 6:30 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on 703.308.1957. The fax phone numbers for the organization where this application or proceeding is assigned are 703.305.3590 for regular communications and 703.305.3590 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.0858.



**Kim M. Lewis**  
**Primary Examiner**  
**Art Unit 3761**

kml  
June 29, 2003